

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-181868

(43)Date of publication of application : 03.07.2001

(51)Int. Cl.

C23F 1/18

(21)Application number : 11-361152

(71)Applicant : ASAHI DENKA KOGYO KK

(22)Date of filing : 20.12.1999

(72)Inventor : YAJIMA AKIMASA  
IKEDA KIMIHIKO  
KABEYA RYOJI  
ISHIZUKA YOSHITSUGU  
KOMURA KAZUTADA

(54) MICROETCHING AGENT FOR COPPER AND COPPER ALLOY

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a microetching agent capable of executing microetching free from the generation of unevenness in etching even in the case microstains such as oily components are present on the surface of copper.

SOLUTION: This microetching agent for copper and/or copper alloys is composed of an aqueous solution containing (a) ferric sulfate (III), (b) sulfuric acid and (c) nonionic surfactant, the concentration of (a) is 1 to 40 wt.%, the ratio of (b) to 100 pts.wt. of (a) is 5 to 50 pts.wt., the concentration of (c) is 0.01 to 10 wt.%, the content of halogen is 0.01 to 20 wt.%, and suitably, (d) phosphoric acid of 0.01 to 30 wt.%, or (e) carboxylic acid of 0.01 to 30 wt.%, or (d) phosphoric acid of 0.01 to 15 wt.% and (e) carboxylic acid of 0.01 to 15 wt.% are contained.

## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998, 2003 Japan Patent Office

<b>THOMSON</b> <b>DELPHION</b>	<b>RESEARCH</b>	<b>PRODUCTS</b>	<b>INSIDE DELPHION</b>
<a href="#">My Account</a>   <a href="#">Products</a>	<a href="#">Search: Quick-Number</a>   <a href="#">Boolean</a>   <a href="#">Advanced</a>		<a href="#">Help</a>

## The Delphion Integrated View

Buy Now: ☒ PDF | [More choices...](#)Tools: Add to Work File: [Create new Work File](#) View: [INPADOC](#) | Jump to: [Top](#)☐ [Email this to a friend](#)

**Title:** JP2001181868A2: MICROETCHING AGENT FOR COPPER AND COPPER ALLOY

**Country:** JP Japan

**Kind:** A2 Document Laid open to Public inspection

**Inventor:** YAJIMA AKIMASA;  
IKEDA KIMIHIKO;  
KABEYA RYOJI;  
ISHIZUKA YOSHITSUGU;  
KOMURA KAZUTADA;

**Assignee:** ASAHI DENKA KOGYO KK  
[News, Profiles, Stocks and More about this company](#)

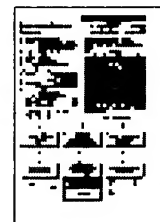
**Published / Filed:** 2001-07-03 / 1999-12-20

**Application Number:** JP1999000361152

**IPC Code:** C23F 1/18;

**Priority Number:** 1999-12-20 JP1999000361152

**Abstract:**

[View Image](#)

1 page

**PROBLEM TO BE SOLVED:** To provide a microetching agent capable of executing microetching free from the generation of unevenness in etching even in the case microstains such as oily components are present on the surface of copper.

**SOLUTION:** This microetching agent for copper and/or copper alloys is composed of an aqueous solution containing (a) ferric sulfate (III), (b) sulfuric acid and (c) nonionic surfactant, the concentration of (a) is 1 to 40 wt.%, the ratio of (b) to 100 pts.wt. of (a) is 5 to 50 pts.wt., the concentration of (c) is 0.01 to 10 wt.%, the content of halogen is 0.01 to 20 wt.%, and suitably, (d) phosphoric acid of 0.01 to 30 wt.%, or (e) carboxylic acid of 0.01 to 30 wt.%, or (d) phosphoric acid of 0.01 to 15 wt.% and (e) carboxylic acid of 0.01 to 15 wt.% are contained.

**COPYRIGHT:** (C)2001,JPO

**Family:** None

**Other Abstract Info:** None



[Nominate this for the Gallery...](#)